City of Manhattan Beach

FY 2025 Pass-Through Rate Calculation

FINAL REPORT/ March 17, 2025

RAFTELIS

RAFTELIS

March 17, 2025

Mr. Jeffrey Page
Utilities Director
City of Manhattan Beach
1400 Highland Ave.
Manhattan Beach, CA 90266

Subject: FY 2025 Pass-Through Rate Calculation

Dear Mr. Page:

Raftelis is pleased to provide this Water Pass-Through Rate Calculation Report to the City of Manhattan Beach. The purpose of the calculation was to develop a pass-through rate for FY 2025 to recover the difference between previously assumed wholesale water purchase costs and actual wholesale water purchase costs.

It has been a pleasure working with you and we appreciate the support provided during the course of this engagement.

Sincerely,

Steve Gagnon
Project Manager

Nick Kennedy
Staff Consultant

Contents

Tables

Figures

Introduction

1.1. Study Overview

The City of Manhattan Beach engaged Raftelis in late 2024 to calculate a water pass-through rate for the Fiscal Year (FY) ending in 2025.

Raftelis previously conducted a Water Cost of Service and Rate Design Study (Rate Study) for the City in 2022. This Rate Study estimated the City's total cost of purchased water based on wholesaler rates and charges and estimated volumes. The City has two sources of water;

1) imported water from the Metropolitan Water District (MWD) purchased through the West Basin Municipal Water District (WBMWD), and
2) groundwater which is replenished (purchased) through the Water Replenishment District of Southern California (WRD).

The 2022 Rate Study projected wholesale rates and charges from both these wholesalers and assumed a certain volume of water would be purchased from each. These assumptions were used to calculate the total cost of purchased water in the 2022 Rate Study.

Not only did the actual cost of water from the MWD surpass estimates, but the City also bought more imported water than anticipated due to the timing of the groundwater treatment plant going into service. The goal of the pass-through calculations is to calculate a rate, called a pass-through rate, that would pass-through the difference between *projected* water purchase costs from the 2022 Rate Study and water purchase costs based on known wholesaler charges. MWD rates increased more than anticipated in the 2022 Rate Study as discussed below.

2. Assumptions

2.1 Wholesale Water Rates and Charges

The 2022 Water Rate Study projected the below future wholesale charges. Actual MWD charges surpassed the projections used in the study. The pass-through rate is based on the difference between the rate study projected water purchase costs and water purchase costs calculated using actual MWD rates and charges. The wholesaler rates and charges include:

1. MWD Tier 1 Volumetric Rate
2. MWD Capacity Charge ($/Cubic feet per second (cfs))
3. West Basin Fixed Service Charge
4. Water Replenishment Rate (WRD)

Table 1 shows the wholesale water rates based on the 2022 rate study.

Table 1: 2022 Rate Study Assumed Wholesale Rates

Line No.	Prior Rates	FY 2025
1	MWD Non-Interruptible Tier 1 Volumetric Rate	
2	Jul - Dec	$1,615
3	Jan - Jun	$1,677
4	MWD Capacity Charge ($/cfs)	$10,484
5	West Basin Fixed Service Charge	$435,289
6	Water Replenishment Rate (WRD)	$454

Table 2 shows the actual wholesale water rates and charges established by wholesalers. As shown, the MWD rates are higher than anticipated.

Table 2: Actual Wholesale Rates

Line No.	Actual Rates	FY 2025
1	MWD Non-Interruptible Tier 1 Volumetric Rate	
2	Jul - Dec	$1,708
3	Jan - Jun	$1,899
4	MWD Capacity Charge ($/cfs)	
5	Jul - Dec	$9,605
6	Jan - Jun	$11,933
7	West Basin Fixed Service Charge	$289,067
8	Water Replenishment Rate (WRD)	$437

2.2 Water Production Assumptions by Source

Table 3, lines 1 and 2, show the percentage of City water purchased by source assumed in the 2022 Rate Study. The total volume produced, in line 7 of each table, is the estimated volume for FY 2025[1] based on updated assumptions.

As shown by comparing Tables 3 and 4, the City expected to obtain more groundwater than they did, due to the timing of the groundwater treatment plant going into service. Lines 4 and 5 of each table, show the volume of water in acre-feet (AF) and are derived by multiplying the total water produced in acre-feet by the percentages in lines 1 and 2. The total water production shown in lines 6 and 7 is the water produced in AF and centum cubic feet (ccf) under updated assumptions. Both tables use a revised estimate of water production instead of the previously assumed water production from the 2022 Rate Study. FY 2025 assumes a 7% water loss. This means that the City must produce 7% more water than it sells to customers due to system water loss. The actual volume sold is 7% less than shown. Table 4 shows the (revised) updated water

[1] The 2022 Water Rate Study assumed a higher volume of water was sold. Calendar year 2024 was a relatively "wet year" and calendar year 2023 was the wettest year on record. Using updated volume assumptions for FY 2025 instead of the volumes assumed in the 2022 Rate Study creates a slightly lower pass-through.

production by source. As shown, the City anticipates purchasing less groundwater in FY 2025 compared to the 2022 Rate Study.

Table 3: Water Production Assumed in 2022 Rate Study

Line No.	Prior Assumptions	FY 2025
1	Imported Water	74%
2	Groundwater	26%
3	**Water Production**	
4	Imported	3,042 AF
5	Groundwater	1,081 AF
6	**Total Water Production AF**	**4,123 AF**
7	**Total Water Production ccf[2]**	**1,670,246**

Table 4: Updated Water Production Assumptions

Line No.	Updated Assumptions	FY 2025
1	Imported	80%
2	Groundwater	20%
3	**Water Production**	
4	Imported	3,298 AF
5	Groundwater	825 AF
6	**Total Water Production AF**	**4,123 AF**
7	**Total Water Production ccf[2]**	**1,670,246**

2.3 Imported Water Purchase Assumptions

The MWD volumetric rates change halfway through each fiscal year (they change with each calendar year), as shown in Tables 1 and 2. This affects the City's total water purchase costs. The percentage purchased in each part of the fiscal year is based on historical water use data and is applied to the total imported water volume as shown in Tables 5 and 6. The volumes shown for FY 2025 in Tables 5 and 6 are used to calculate the MWD volumetric water purchase costs. Tables 5 and 6 show the prior Rate Study and updated volume assumptions used to calculate MWD water purchase costs, respectively.

Table 5: Imported Purchased Water Volumes in the 2022 Water Rate Study

Line No.	Imported Purchased Water Volume (West Basin)	% of Water Used in Period Shown	FY 2025
1	Jul - Dec	57%	1,725 AF
2	Jan - Jun	43%	1,317 AF
3	**Total Imported Water**		**3,042 AF**

[2] 1 AF is equal to 325,829 gallons. 1 ccf is equal to 748 gallons.

Table 6: Projected Imported Purchased Water Volumes

Line No.	Imported Purchased Water Volume (West Basin)	% of Water Used in Period Shown	FY 2025
1	Jul - Dec	57%	1,870 AF
2	Jan - Jun	43%	1,428 AF
3	**Total Imported Water**		**3,298 AF**

3. Pass-Through Calculations

The wholesaler water purchase costs for the 2022 Rate Study and updated purchase costs based on actual wholesaler charges and updated volumes are explained below. Comparing Table 7 and Table 8 shows that the City will spend approximately $647k more than anticipated on water purchases.

1. Line 1 of Tables 7 and 8 show the MWD Water Purchase cost calculated by multiplying the MWD Tier 1 Volumetric rates shown in lines 2 and 3 of Tables 1 and 2 by the corresponding imported purchased water volume in lines 1 and 2 of Tables 5 and 6.
2. Line 2 of Table 7 shows the MWD Capacity Charges under Rate Study assumptions calculated by multiplying the MWD Capacity Charge ($/cfs), shown for Rate Study assumptions in line 4 of Table 1, by a 3-year peak average of 8.5 cfs. We have not shown these calculations in a table, but they are the same as the capacity charges described in item 3 below and shown in Table 9.
3. Line 9 of Table 9 shows the actual MWD capacity charge calculated by taking the sum of the MWD Capacity Charges for July – December and January – June.
4. Tables 7 and 8 show the prior Rate Study water purchase costs and updated water purchase costs in line 5 of each table, respectively. The difference is the total cost recovered from the pass-through rate.

Table 7: 2022 Rate Study Water Purchase Costs

Line No.	Water Purchase Costs Based on 2022 Rate Study Assumptions	FY 2025
1	MWD Tier 1 Water Purchases	$4,994,017
2	MWD Capacity Costs	$89,115
3	West Basin Fixed Service Charge	$435,289
4	WRD Groundwater	$490,928
5	**Water Purchase Costs Based on 2022 Rate Study**	**$6,009,349**

Table 8: Updated Water Purchase Costs

Line No.	Water Purchase Costs Based on Actual Wholesale Rates	FY 2025
1	MWD Water Purchases	$5,906,402
2	MWD Capacity Costs	$91,537
3	West Basin Fixed Service Charge	$289,067
4	WRD Groundwater	$360,347
5	**Water Purchase Costs with Actual Wholesale Rates**	**$6,647,353**

Table 9: MWD Capacity Charge Based on Actual Wholesale Charges

Line No.	Updated Capacity Cost Calculation	FY 2025	Calculation
1	MWD Capacity Charge ($/cfs)		
2	Jul - Dec	$9,605	
3	Jan - Jun	$11,933	
4			
5	3-Year Average Peak (cfs)	8.5	
6			
7	MWD Capacity Charge for Jul - Dec	$40,821	Line 2 * Line 5 ÷ 2
8	MWD Capacity Charge for Jan - Jun	$50,715	Line 3 * Line 5 ÷ 2
9	**Total MWD Capacity Charge ($/cfs)**	**$91,537**	**Line 7 + Line 8**

5. The West Basin Fixed Service Charge, shown in line 3 of Tables 7 and 8, is a fixed wholesaler amount. There are no calculations for this charge.
6. The WRD Groundwater purchase (replenishment) costs are calculated by multiplying the Water Replenishment Rate shown in line 6 of Table 1, and line 8 of Table 2 by the corresponding total groundwater volumes shown in line 5 of Tables 3 and 4.

Table 10 shows the final pass-through calculation. The total Rate Study and updated water purchase costs in lines 1 and 5 are divided by the Rate Study and updated volumes in lines 2 and 6 to calculate a unit rate for each. The difference between the two unit rates is the pass-through rate. The pass-through rate is the rate required for FY 2025 to recover the difference between projected Water Rate Study water purchase costs and updated water purchase costs.

Table 10: Pass-Through Rate $/ccf

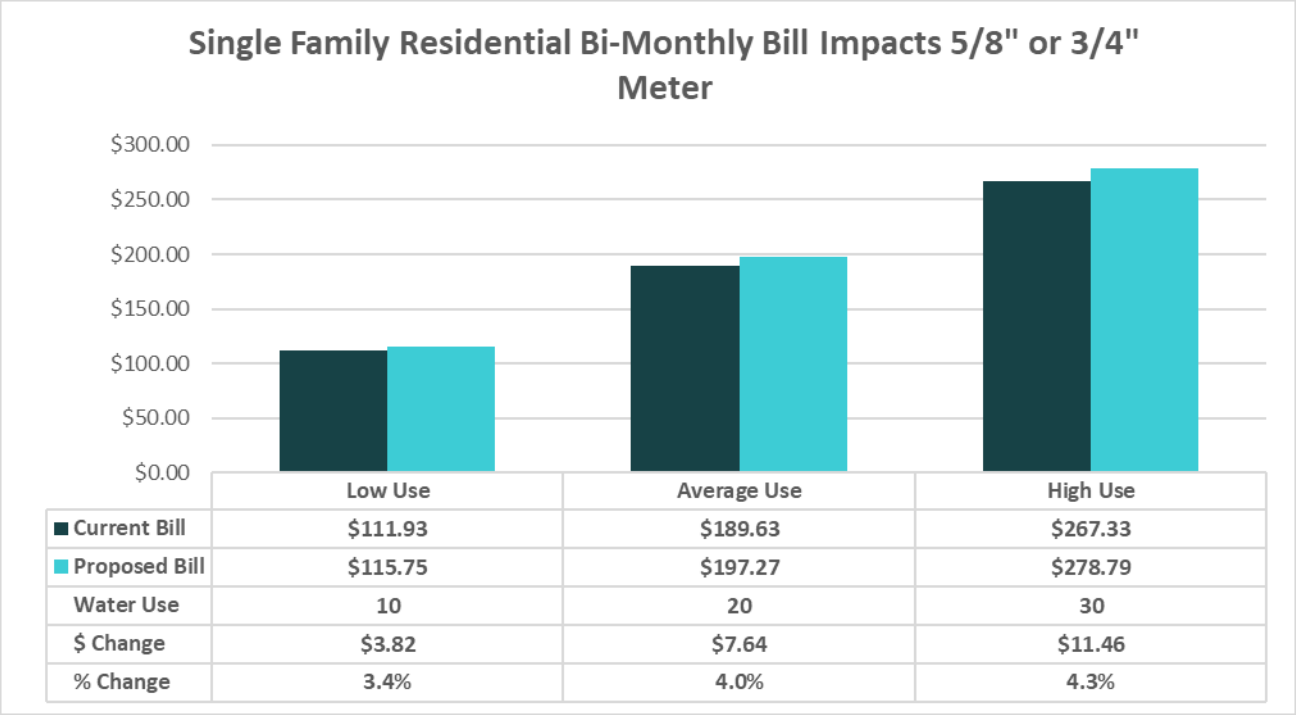
Line No.	Difference in Water Purchase Costs	FY 2025
1	Rate Study Purchased Water Costs	**$6,009,349**
2	Rate Study Purchased Water Volume	1,670,246
3	**Previous Unit Rate $/ccf**	**$3.60**
4		
5	Updated Purchased Water Costs	**$6,647,353**
6	Updated Purchased Water Volume	1,670,246
7	**New Unit Rate $/ccf**	**$3.98**
8		
9	**Pass-Through Rate $/ccf per Fiscal Year**	**$0.38**

4. Impact on Rates

4.1 Customer Bill Impacts

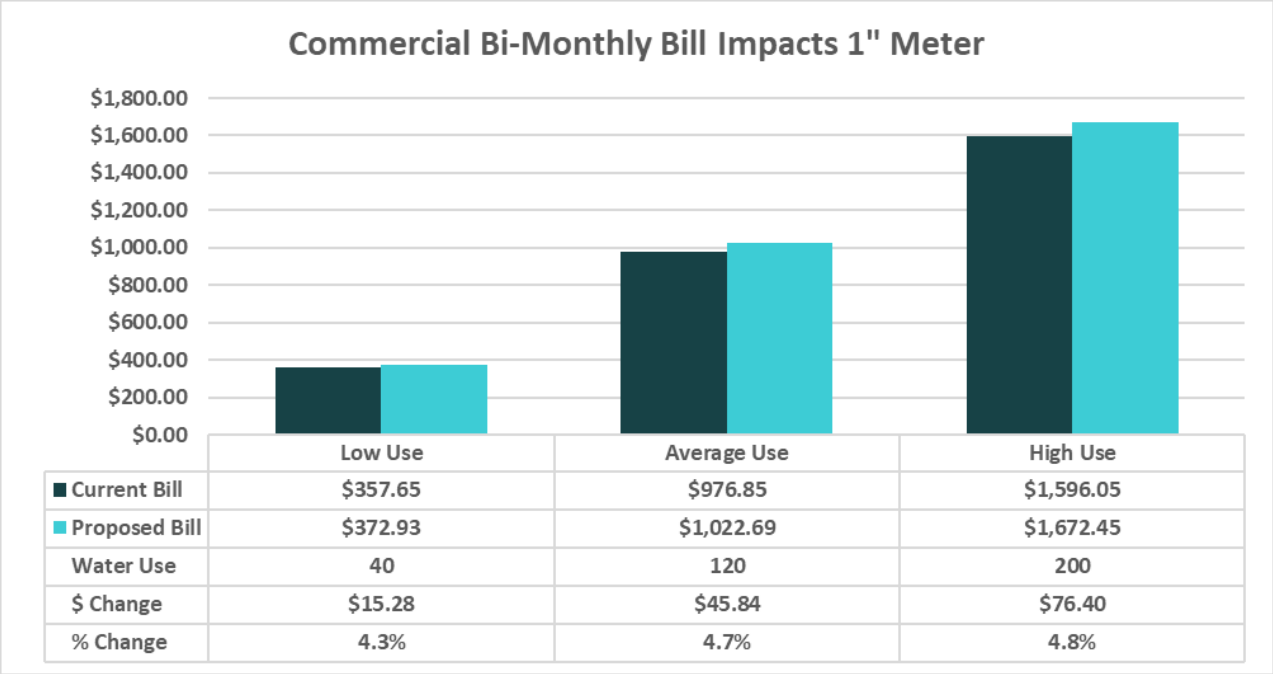
Figure 1 and Figure 2 show sample bi-monthly bills for Single-family (SFR) and Commercial customer classes using the most common meter size for each class and a range of water use to provide sample impacts for customers at different levels of water use.

Figure 1: Single Family Residential Customer Bill Impacts



	Low Use	Average Use	High Use
Current Bill	$111.93	$189.63	$267.33
Proposed Bill	$115.75	$197.27	$278.79
Water Use	10	20	30
$ Change	$3.82	$7.64	$11.46
% Change	3.4%	4.0%	4.3%

Figure 2: Commercial Customer Bill Impacts



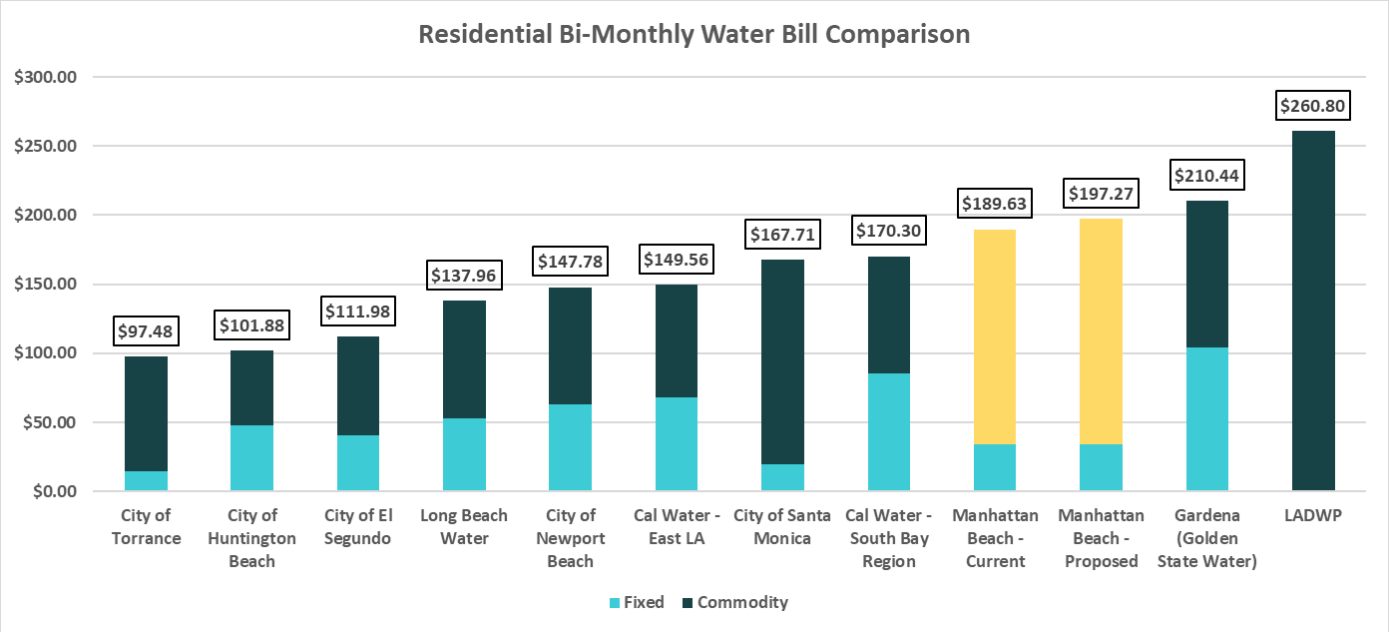
	Low Use	Average Use	High Use
Current Bill	$357.65	$976.85	$1,596.05
Proposed Bill	$372.93	$1,022.69	$1,672.45
Water Use	40	120	200
$ Change	$15.28	$45.84	$76.40
% Change	4.3%	4.7%	4.8%

4.2 Rate Survey

Figure 3 shows a comparison of sample SFR bi-monthly bills with nearby water agencies. All bills are calculated based on a 3/4" water meter and bi-monthly water use of 20 HCF which is the average SFR use in FY 2020. Actual average current use is likely a little lower. Many factors affect the cost of serving water and while rate surveys are common, the specifics discussed below need to be understood before drawing conclusions about rates or the efficiency of purveyors. Items affecting the cost to serve water include:

1. Tax and other sources of revenue – some agencies receive tax revenue, substantially lowering the revenue required from rates
2. Water sources – agencies who buy more imported water usually pay more for water compared to purveyors who pump groundwater or have other sources of local water
3. Topography – agencies with a hilly terrain will incur costs to pump water compared to agencies with flat topography
4. System reinvestment – deferred investment in rehabilitation projects will keep rates low compared to agencies that are investing in their system
5. Age – newer systems are often in better shape than older systems and require less repair
6. Size – smaller systems often have a higher cost per customer since they lack economies of scale

Figure 3: Residential Bi-Monthly Bill Comparison to Nearby Agencies



4.3 Total Pass-through Rate Revenue

Table 11 shows the total projected pass-through rate revenue for all customers. This calculation is done by multiplying the assumed water use, shown in Tables 3 and 4, by the $0.38 pass-through rate. The result shows the revenue estimated to be collected from the $0.38 pass-through rate if implemented for a full fiscal year.

Table 11: Projected Revenue Collected by Pass-Through Rate

Time Period	Water Use (ccf)	Pass-Through Rate ($/ccf)	Projected Pass-Through Revenue
12 months	1,670,246	$0.38	$638,004